

Jones Beach and Cathedral Rocks Reserve



PLAN OF MANAGEMENT



Adopted 19 June 2001
Amended 19 August 2014

Plan of Management

Jones Beach and Cathedral Rocks Reserve

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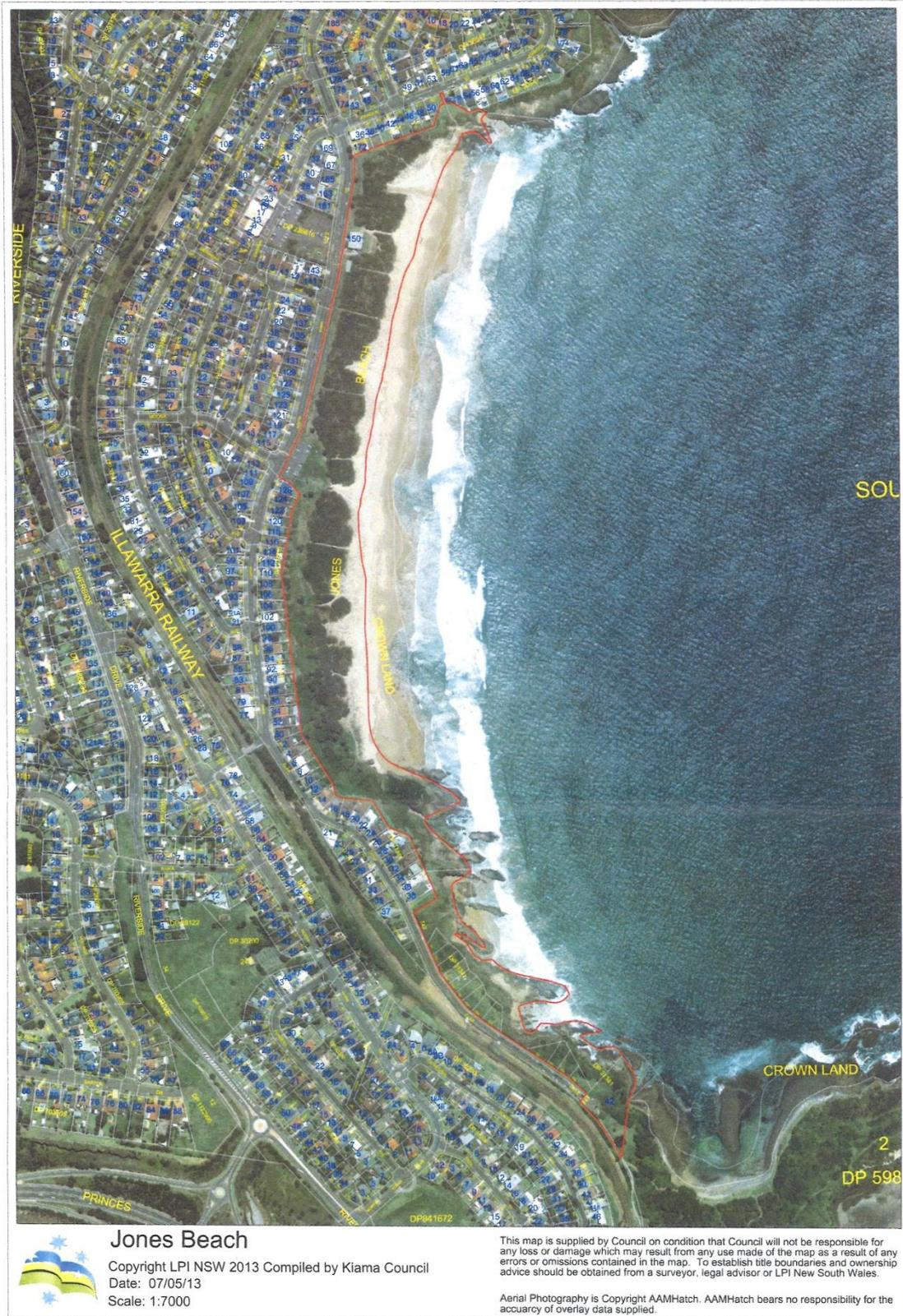


Figure 1

1.0 INTRODUCTION

1.1 Background

The Local Government Act 1993 requires the classification of all Council land as either community or operational. Community land generally refers to property which Council retains for use by the general public, whilst operational land may be otherwise developed, disposed, leased, etc. without any specific requirements as to how the land should be managed on a day to day or longer term basis. For community land, a plan of management is to be prepared identifying how Council will manage the land and how the land may be used.

This amended plan of management has been prepared in order to achieve balanced, responsible and ecologically sustainable use of the land and addresses the needs of both local residents and the broader community. It has been prepared to meet the requirements of the Local Government Act 1993. The original plans of management for Jones Beach Reserve and Cathedral Rocks Reserve, adopted by Council on 19 June 2001 as two separate plans of management, have been combined into a single plan of management. The plan of management identifies outcomes and how these outcomes will be achieved through an action plan.

The land covered by this plan is located at Jones Beach incorporating the rocky headland at the south end known as Cathedral Rocks and extending further up to the embayment known as the Boneyard in Kiama Downs as shown in Figure 1. The land is public land owned by Kiama Municipal Council and has been classified “community” land under the provisions of the Local Government Act 1993.

1.2 Community Land Covered by the Plan

The community land covered by this plan consists of the following parcels of land:

- Part Lot 1027 DP 232242
- Lot 3 DP735746
- Lots 747 and 749 DP31341
- Lots 721 to 733 DP31341

The area covered by this plan is approximately 14.4 hectares.

1.3 Category of Land

Under Section 36(4) of the Local Government Act 1993, all community land must be categorised as either:

- natural area
- sportsground
- park
- area of cultural significance, or
- general community use

It is considered that in accordance with the guidelines set out in the Local Government Regulation 1999 and the Department of Local Government Practice Notes, the public reserve identified in this plan of management is appropriately categorised as “General Community Use”.

1.4 Function and Value of General Community Use Areas

The Jones Beach area has significant recreational values for visitors and the local community due to the proximity to the surrounding residential catchment. The area is utilised by the public for swimming, surfing, walking, cycling, picnicking and recreational fishing. In the central part of Jones Beach there are picnic facilities, children’s play equipment and a public car park. The Kiama Downs Surf Life Saving Club is located at the northern end of the beach and next to this is a public amenities building.

The Cathedral Rocks area includes public access around the headland which is accessible from Cliff Drive. Along Cliff Drive there is a connecting cycleway/footpath extending around Bombo headland. The reserve has significant aesthetic qualities and recreational values to be enjoyed by the entire community.

An integral component of this management plan is to protect and conserve the reserve and shoreline areas for long term public benefit and use.

1.5 Preparation of a Plan of Management

The process undertaken in the preparation of a plan of management or revised plan of management for Council owned community land must follow the steps and requirements set out in the Local Government Act 1993. These steps are:

- Prepare draft plan/amended plan.
- Council publicly advertises the draft plan for a minimum of twenty-eight (28) days with a total period of 42 days during which submissions may be made to Council.

- Hold a public hearing (when an amending plan of management proposes a different categorisation of land).
- Council considers submissions made during exhibition and may amend the draft plan or adopt the plan without amendment. Should the draft plan require major amendment or a change to the proposed category of land, the public consultation process (exhibition and submission period) must be repeated.
- Plan of management adopted by Council.

1.6 Community Participation

Community consultation is a fundamental source of information necessary to provide the most effective plan of management for community land.

Such participation creates the opportunity for interested parties to become actively involved in the development of a plan which reflects the needs, opinions and priorities of the people most affected by the plan of management.

Community participation will also result in an increased general awareness of Council's responsibilities, activities, policies and plans for land management. This amended plan of management included the formation of a Working Party comprised of local residents through an expression of interest process, three public information sessions held at the Kiama Downs Surf Life Saving Club as well as the statutory public exhibition period for the draft plan.

2.0 PHYSICAL FEATURES AND CONDITION OF THE LAND

Jones Beach area

The land included in this plan is the sandy beach above the mean high water mark, the restored sand dune and vegetation, part of the rocky foreshore at the northern end of the beach, the area behind the dune incorporating the Kiama Downs surf club building, public amenities building, car park, picnic area, children's playground and the cycleway/pathway extending along the eastern side of North Kiama Drive (part of the designated Kiama Coastal Walk route) as well as the steeper land behind the Jones Beach dune system at the southern end adjoining private properties along North Kiama Drive and Cliff Drive.

The beach is approximately 900 metres in length and faces almost directly east. The natural dune system was removed from the beach during urban development within the catchment in the 1960s leaving only a very low foredune system devoid of stabilising vegetation. During large storms in the 1970s, this dune system was breached and sand and water entered properties on the western side of North Kiama Drive directly opposite the beach.

Dune rehabilitation works commenced in the early 1990s under the NSW Government's Coastal Program with Jones Beach being regarded as one of the most degraded beaches in the region. The reshaped dune was planted with grasses, coastal acacia and native coastal shrubs to provide a more stable dune system and give better protection to the public assets and private property along North Kiama Drive.

When Council adopted the *Foreshores Plan of Management* in 1996 it was noted that "approximately 50% of the dunes on the beach have been reshaped and stabilised. Dune rehabilitation works are required on the dunes north of the Surf Club and the southern area extending to the southern car park".

Over a long period of time, some residents at the southern end of Jones Beach have undertaken a considerable amount of tree planting within the hind dune area. This area is separated from the rear boundary of private properties along North Kiama Drive by a steep embankment and now generally covered by lantana/other vegetation. Some residential property owners have previously constructed informal tracks and steps down the embankment to gain direct/easier access to the beach and public reserve area.

Three major stormwater pipes outlet onto the beach. The outlets are located in the foredune area generally isolated from the wash zone of the surf. Previous attempts were made to extend the foredune partially across the front of the outlets to provide protection from south-east and north-east ocean swells and thereby create a natural basin in front of the outlets. However, due to a number of large storms in the late 1990s which removed large quantities of sand at the front of the beach/wash zone, this was not successful and has not been persevered.

The reserve (beach) is generally accessible along North Kiama Drive as well as through a constructed pathway from Johnson Street. Along North Kiama Drive there are six constructed and fenced walkway paths through the sand dune providing access to the beach. Approximately forty private properties directly adjoin the reserve along North Kiama Drive/Cliff Drive and ten private properties in Johnson Street.

The children's playground equipment was replaced in 2007 and presently is in good condition. The adjoining car park and picnic areas are also in good condition.

The surf club building was constructed in the early 1990s and is in good condition. The Kiama Downs Surf Life Saving Club occupies the surf club building under lease. Improvements were carried out to the public toilets and change rooms adjacent to the surf club in 1997 following the *Foreshores Plan of Management 1996* and still serve an important function for the community particularly during summer periods and other times of high beach usage.

The southern-most area within the Jones Beach "zone" forms a link between Jones Beach and the Boneyard (which is located on the northern face of Bombo headland to the south). However, access from Jones Beach up to the prominent elevated headland (approximately 25m elevation change) is only provided by a rough track which has most likely been established as a desire line through local reserve usage over a long period of time. Previously (and prior to the original Jones Beach and Cathedral Rocks Plans of Management adoption in 2001), a steep stair structure was constructed purportedly by unknown members of the public but has been decommissioned by Council during this plan of management review process due to safety concerns with the construction standard and overall condition. These stairs will remain permanently decommissioned and will remain partly in-situ with appropriate barricading and signage until vegetation encroaches over it.

Alternate public access is available between the Cathedral Rocks headland and Jones Beach along ground surface tracks but is not part of the designated Coastal Walk which in this location follows the road reserve of Cliff Drive and North Kiama Drive.

There are several other structures in the reserve in the form of steps. The step structures number seven and have most likely been established by owners of the benefitting private properties at some point in time, pre-dating the original Jones Beach Plan of Management in 2001 which cited the existence of these. This plan of management review process incorporated a review of these structures on public land.

There is a section of the reserve generally between house numbers 82-100 North Kiama Drive currently maintained as linked ground surface tracks which lead to the base of the embankment at the rear of the beach dune system. This type of access throughout the reserve is supported but the construction of any additional step or stair structures is not. Council can continue to investigate a continuous and connected public access route through the reserve for the benefit of the entire community. If this can be justified and funded, construction and management would be undertaken by Council.

This part of the reserve is heavily infested with lantana and other weeds and is extremely difficult to manage due to the significant slope of the land. Although unsightly and not preferred, the exotic vegetation over the steep and inaccessible land provides functional

benefit in the form of ground stabilisation. Maintaining this land with predominantly native vegetation is unrealistic given the up-front and on-going resource levels attached to such works. However if funding and resources become available, consideration can be given to managing the land this way including the role of a Landcare or similar group to actively pursue lantana and other weed removal.



Jones Beach – view south



Jones Beach – view north

Cathedral Rocks area

The reserve includes the headland that physically separates Jones Beach from the area known as the Boneyard. Vertical cliffs define the eastern edge of the reserve in this area as well as rocky embayments. The rock formation known as Cathedral Rocks is a well known geological feature formed by the remnants of the edge of a lava flow eroded by the sea with the vertical basalt columns remaining formed during the cooling process of the lava.

The area on top of the headland and generally directly behind private properties along Cliff Drive (No's 16-38) is generally mown/maintained by the respective property owners. There are also some instances of garden establishment. The current practice of adjoining owner maintenance extending to mowing up to the cliff edge is contrary to Council's practice of maintaining rough buffer areas around cliff lines/edges throughout the Municipality. This practice presents public safety issues and this plan of management addresses this issue with appropriate actions.

Public access is available from Cliff Drive and across the rear of the private properties and taking into account the views from there of the Boneyard, Jones Beach and Cathedral Rocks, the potential for public enjoyment of this space requires access and safety conditions to be considered for public safety.

There are no significant structures in this part of the reserve with the exception of the constructed road cul-de-sac of Cliff Drive and the extending cycleway path to the south through the reserve known as Cameron Boyd Reserve. Around the edge of this reserve there are infestations of lantana and other weeds.



Cathedral Rocks



Views from Cathedral Rocks to the Boneyard

3.0 COUNCIL'S MANAGEMENT PRINCIPLES AND PRIORITIES

Council has defined a number of corporate goals to be taken into account in any future development of parks and recreation areas. These goals form an overarching framework for the detailed objectives and strategies of this plan of management.

3.1 Aim of this plan of management

The aim of this plan of management is to achieve a balanced, responsible and ecologically sustainable use of the land and ensure that it addresses the needs of the community, complies with the Local Government Act 1993 and is consistent with Council's corporate objectives. The plan also aims to consolidate previous separate management plans into a single document identifying key issues to assist with clear land management practices.

3.2 Council's corporate objectives

Kiama Council's Community Strategic Plan identifies the long-term community vision as *"working together for a healthy, sustainable and caring community"*. To achieve this, the following objectives exist:

- A Healthy, Safe and Inclusive Community
- Well Planned and Managed Spaces, Places and Environment
- A Diverse, Thriving Economy
- Responsible Civic Leadership that is Transparent, Innovative and Accessible

The following two specific objectives under "Well Planned and Managed Spaces, Places and Environment" from the Strategic Plan has direct relevance to community land categorised for general community use:

"2.11 Effectively manage the drainage network to cater for current and future generations", and

2.12 Effectively manage recreation and open space infrastructure to cater for current and future generations."

3.3 Planning principles

Council will:

- Consider and attempt to balance the need for recreation facilities with any impact this may have on local residents;
- Attempt to balance the provision of both active and passive recreational facilities;
- Consider access to recreational facilities and future developments for all users;
- Limit facilities on the site to those which are compatible with the objectives of the plan of management;
- Attempt to provide safe pedestrian links and corridors through the reserve and connectivity to adjoining public areas.

3.4 Development of new and improvement of existing facilities

All major developments and improvements to be funded by Council will be part of Council's Delivery Program and Operating Plan.

Works included in Council's Delivery Program can be funded from income generated from Council's entrepreneurial activities, general revenue, Section 94 contributions and external funds in the form of Government grants. If the anticipated revenue from these sources is not achieved by target works program dates, proposed works may be deferred.

Council will encourage community assistance in the development of new facilities, as well as maintenance of existing facilities, through the co-operation and assistance of local groups/residents.

3.5 Maintenance principles

Council will:

- Maintain "General Community Use" land generally by mowing and edging at appropriate intervals;
- Carry out any vegetation management in association with a Landcare organisation or similar in accordance with standard accepted horticultural practices;
- Inspect and if required repair any assets/structures for the continued use and enjoyment by the community.

3.6 Usage fees

Council applies fees for the use of public reserves in some instances. Application must be lodged with Council prior to an event and all applicable fees must be paid prior to the hire/use of the reserve.

The fees associated with the hiring of Council reserves are detailed in Council's Fees and Charges, reviewed annually.

3.7 Uses and activities requiring Council approval

- All activities defined in Part D Section 68 of the Local Government Act 1993;
- Those permissible uses listed in the relevant zoning table (RE1) within Kiama LEP 2011;
- Fetes/cultural activities;
- Exhibition/displays;
- Commercial photographic/film shoots;
- Concerts/performances;
- Large, formal gatherings.

3.8 Prohibited activities

Activities in the view of Council which may be damaging to the reserve, disruptive and/or may represent a danger to either users of the reserve or neighbouring properties or which are not consistent with the land zoning are prohibited. With the exception of Council vehicles, contractors engaged by Council associated with maintenance activities or other land investigations and surf rescue vehicles, vehicle access to the beach and secured areas of the reserve is not permitted.

3.9 Signage

Council uses signs to regulate and advise the activities able to be carried out on community land and to provide information to create a safe and enjoyable place for passive and active recreational pursuits.

Whilst signs are a crucial source of information, they can have a significant impact on the aesthetics of a reserve. All signs must meet a design standard and be approved by Council. Current signage may need to be reviewed in terms of location and messages to properly inform the community of Council's land management objectives.

All Council signs such as reserve names, safety, warning and advisory/information signs are permissible.

3.10 Leases, licenses and other estates

This plan of management authorises the lease, licence or grant of any other estate over part or all of the Jones Beach community land for the purpose of public recreation or the physical, cultural, social and intellectual welfare or development of members of the public and otherwise generally as permitted by Section 46 of the Local Government Act and Clauses 116 and 117 of the Local Government Regulations.

The current lease between Kiama Municipal Council and the Kiama Downs Surf Life Saving Club Incorporated is for a 20 year term commencing 1 April 2005. Council is also permitted to review the lease boundaries of the surf club lease at any time as well as consider additional uses/development in the vicinity of the club building through an amended lease which has the purpose of improving surf club management, beach safety and enhances user (public) enjoyment. This Plan of Management does not require review/amendment in this situation.

Council reserves the right to grant easements as required for public utilities and works over community land under Section 46(1)(a) of the Local Government Act 1993.

3.11 Use of community land for roads

In accordance with Section 47F of the Local Government Act 1993, this plan of management expressly authorises the construction of a public road over community land and subsequent dedication of the road as public road under Sections 9 and 10 of the Roads Act 1993. In the event of a public road being dedicated under the Roads Act, the area of land affected should ultimately be reclassified as operational land to properly reflect the new usage.

3.12 Companion animals

Existing Acts and Regulations regarding the prohibition of animals such as dogs and horses on community land without prior Council approval must be enforced to keep these areas free of animals and excrement.

Council will enforce the Companion Animals Act 1998 and Regulations or equivalent which states that the owner of a dog found in a prohibited place is in breach of the law. In general a dog is not permitted in the following places (whether or not they are leashed or otherwise controlled):

- Within 10 metres of any playing apparatus (children's playground);
- Within 10 metres of any structure or equipment provided for the preparation or consumption of food by humans;
- Public bathing areas including a beach that Council has ordered that dogs are prohibited and upon which there are signs notifying this prohibition;
- Public recreation areas or areas for playing organised games that Council has determined that dogs are prohibited and upon which there are signs notifying this prohibition.

4.0 MANAGEMENT OBJECTIVES, ISSUES AND STRATEGIES

4.1 Management objectives

(i) **Core objectives of this plan of management (Section 36(l) of the Local Government Act 1993)**

The core objectives for the management of community land categorised as general community use are to promote, encourage and provide for the use of the land, and to provide facilities on the land, to meet the current and future needs of the local community and of the wider public:

- (a) *in relation to public recreation and the physical, cultural, social and intellectual welfare or development of individual members of the public; and*
- (b) *in relation to purposes for which a lease, licence or other estate may be granted in respect of the land (other than the provision of public utilities and works associated with or ancillary to public utilities).*

Council's corporate objectives, which are set out under Section 3.2 of this document, are also key objectives of this plan of management.

(ii) **Specific land management objectives**

Specific land management objectives apply to this community land. These are as follows:

- (a) To mitigate impact on the reserve by community use
- (b) Protect and enhance the function of the reserve as a buffer between residential development and the beach
- (c) To provide for passive and active recreational activities/pastimes

4.2 Management issues and directions

The management issues associated with the land are discussed in this section as well as directions/outcomes.

Jones Beach area

4.2.1 Regeneration of native plant species and weed control

The majority of native/remnant vegetation within the reserve was removed prior to the 1960s when surrounding urban development commenced. At the southern end of Jones Beach, active replacement of lantana/other exotic species with appropriate coastal native species requires a Landcare (or similar) group due to the extent of revegetation works required. Evolution towards a Landcare group in association with pro-active attempts to secure funding

sources would improve the aesthetics of the reserve for residents and enhance habitat for native fauna.

4.2.2 Stormwater treatment

Three stormwater drains directly discharge on Jones Beach. Generally stormwater runoff is discharged onto the sand in the hind dune rather than directly into the ocean unless during or immediately after a storm event. These discharges may contain litter and pollutants from the urban catchment. In the event the quantity of litter deposited on the beach requires intervention, the provision of trash racks or other litter trap devices at these pipes can be considered. It may be possible to construct pollution control devices upstream in North Kiama Drive however investigations would be required to determine the appropriate treatment for these discharges.

Any litter should be removed as part of Council's maintenance as performed at other sites.

4.2.3 Protection of the dune system

Prior to dune stabilisation works in the 1990s the dunes were in a degraded state which resulted in public and private property being at risk from storm surge. Direct impact to public and private property assets was experienced in the 1970s. The rehabilitated dunes are established with native grasses, trees and shrubs as part of previous dune stabilisation works. It is critical to the ongoing stability of the dune system and for the protection of private and public property along North Kiama Drive that appropriate vegetation be conserved and where required, regenerated to achieve this intent.

Whilst it is impossible to restore the beach with a restored dune system as was in existence prior to urban development (due to the loss of sand from that original environment) the restored dune offers the best protection available against storms. Possible sea level rise due to future climate change is an additional factor adding to the importance of protecting the dune system. It is acknowledged that the predicted impacts of sea level rise may require additional management guidelines to properly protect private and public assets nearby. Future coastal hazard studies undertaken along the Kiama local government coastline (and any recommendations of) need to be considered in addition to this plan of management.

The dunes are to be maintained according to the following principles;

- a) new ground vegetation where the dune is exposed with species identified in the Appendix 2 (Plant Species Selection – Jones Beach Management Zone),
- b) weed removal and substitution with vegetation as specified in the Appendix 2 (Plant Species Selection – Jones Beach Management Zone),
- c) replacement of dead vegetation with vegetation as specified in the Appendix 2 (Plant Species Selection – Jones Beach Management Zone),
- d) diversifying the dune vegetation community in accordance with Appendix 2 (Plant Species Selection – Jones Beach Management Zone),

- e) carrying out required maintenance following storms,
- f) retaining defined walking access points through the dune,
- g) surf rescue or Council vehicles only being permitted on/through the beach and dune,
- h) removal of any buried or partially buried dune fencing on the beach side of the established sand dune (and no replacement fencing).

A Landcare (or similar) group as outlined in Section 4.2.1 is fundamental to the on-going delivery of the identified dune maintenance due to the physical extent of the dune system along Jones Beach. Evolution towards a Landcare group needs to be accompanied by pro-active attempts to secure funding sources both up-front and recurrent.

4.2.4 Provision of recreational facilities

The reserve is mostly used for passive recreation. This use is appropriate for the site taking into account the environmental and physical constraints that exist.

4.2.5 Access steps within public reserve

The existing step/stair structures within the reserve are identified on Appendix 3 – Location of Existing Steps on Public Reserve. These structures have been in place prior to the original Jones Beach Plan of Management in 2001. All these structures are required to be upgraded to a consistent specification to make the structures individually safer for use (Appendix 4 – Specification: Existing Access Steps Upgrade Jones Beach Reserve). Each structure will be required to be upgraded to a consistent specification established by Council to make them individually safer for public use. Upgrading will need to be completed within a specified reasonable timeframe.

In conjunction with this deliberate strategy to retain the step structures, Council will continue to investigate the potential to create a continuous linked public pathway through the reserve (near private property boundaries) utilising the existing steps as access points to and from higher ground. This is a longer term objective.

The alternate to upgrading of steps is total removal of the structures by Council in the first instance however it is considered that the longer term objective has more potential benefit to the broader community.

4.2.6 Coastal walk

The reserve forms part of continuous public land linking Minnamurra to Kiama. Due to steep terrain on the northern side of the Cathedral Rocks headland, the Kiama Coastal Walk is on-road at this location. Access has been available through the reserve for walkers however the terrain is difficult to navigate. A step structure was decommissioned by Council in October 2013 due to safety concerns but in its place access is possible across the natural terrain.

It is possible to construct improved access between Jones Beach and the Cathedral Rocks headland. This access would be constructed to a walking trail standard (using AS2156). If constructed the walk would take advantage of the spectacular views available. If Council decides to formalise this as a dedicated coastal walk route, a risk assessment to determine what measures are required to safely allow the public to walk through the reserve is a prerequisite. A funding commitment for the necessary safety measures generally is also required. At present the on-road coastal walk is appropriate and provides a direct all-weather route for the public to use.

4.2.7 Maintenance within reserve

It is common practice for adjoining owners of public reserves to perform maintenance/upkeep of areas directly adjoining their property. This is usually in the form of grass control. Through time instances of garden construction, tree planting and vegetation clearing within the public reserve has taken place in the Jones Beach public reserve.

Within the public reserve, residents cannot alter the shape of the land and can only perform minimal maintenance including grass cutting, control of environmental weeds and maintenance of existing garden beds following acceptable horticultural practices. Maintenance in this context does not extend to erecting/establishing structures of any kind, tree removal (unless identified in Council's Tree Preservation Order and permission given), new garden beds or vegetable gardens.

The public reserve is for general public use and adjoining owners cannot use the land as extensions to their own private property.

4.2.8 Stormwater drainage

Instances of stormwater disposal directly on to the public reserve needs to be investigated and if possible remedied to avoid areas of the reserve becoming inundated and restricting public access and interrupting normal maintenance (mowing) practices particularly during the growing season.

Cathedral Rocks area

4.2.9 Maintenance within reserve

It is common practice for adjoining owners of public reserves to perform maintenance/upkeep of areas directly adjoining their property. This is usually in the form of grass control. Through time instances of garden construction, tree planting and vegetation clearing within the Cathedral Rocks public reserve has taken place.

Within the public reserve, residents cannot alter the shape of the land and can only perform minimal maintenance including grass cutting, control of environmental weeds and maintenance of garden beds and trees within the reserve following accepted horticultural practices. Maintenance in this context does not extend to erecting/establishing structures of any kind, tree removal (unless identified in Council's Tree Preservation Order and permission given), construction of new garden beds or vegetable gardens.

The public reserve is for general public use and adjoining owners cannot use the land as extensions to their own private property.

4.2.10 Cliff top buffer

The Cathedral Rocks headland public reserve directly behind private properties along Cliff Drive has been continuously mown by the respective property owners for a long period of time. However the current practice of mowing up to the cliff edge presents public safety issues and Council has a duty of care to take reasonable steps to prevent persons entering the public reserve from suffering injury. As a response this plan of management requires the permanent formation of a landscape buffer strip (incorporating existing garden beds and additional edge planting) along the direct cliff edges. This area is indicated in Appendix 1- Landscape Management Zones.

A reasonable width buffer zone is to be introduced by Council in consultation with adjoining owners along the cliff edge. If the established buffer is unsuccessful in achieving a suitable safety barrier, Council may consider the implementation of further safety measures, in consultation with adjoining residents. The buffer zone vegetation may comprise garden bed style formation or stand-alone plantings. In association with the creation of this buffer, Council will seek to improve the width of accessible areas through this public reserve where possible by altering existing landscape features.

4.2.11 Coastal walk

The reserve forms part of continuous public land linking Minnamurra to Kiama. Due to steep terrain on the northern side of the Cathedral Rocks headland, the Kiama Coastal Walk is on-road at this location and the area of public reserve behind the Cliff Drive residential properties is accessed by fewer

people as a walking route. Access is currently available to this area of public reserve adjacent to the southern-most private property along Cliff Drive.

If the area around the Cathedral Rocks headland reserve is ever to be dedicated as a coastal walk route, a risk assessment to determine what measures are required to safely allow the public to walk through the reserve is a pre-requisite. This is due to the existence of cliff edges and at times narrow sections of reserve between private property and cliff edges. A dedicated coastal walk through this public reserve may also reduce the privacy presently enjoyed by these property owners and this has to be balanced by the right of the community to use this public land and benefit from the significant views of the coastline at this location.

4.2.12 Revegetation

Only limited remnant natural vegetation exists in this area, consisting of native coastal vegetation and some rainforest species in the southern end of the site adjoining the Boneyard. The remainder is mostly introduced grasses and exotic weeds. Any future plans to revegetate this area needs to consider the views of Cathedral Rocks from the railway line and Cliff Drive. The size of the reserve at this location would require a landscape masterplan in order to properly implement such an embellishment program.

4.2.13 Provision of recreational facilities

The physical and environmental constraints of the reserve dictate passive recreational usage including walking and fishing. Therefore facilities should target these uses if being considered in the future. Although demand may exist for more car parking facilities in the area close to the Boneyard, the Cliff Drive road reserve and part of the adjoining community land (Cameron Boyd Reserve) may represent a more realistic option than providing a new access road construction and car park down slope closer to the Boneyard where construction costs and the potential to detract from the natural environment would be the likely major concerns.

4.2.14 Stormwater

There is a major stormwater drain passing through the reserve which discharges water from the Kiama Downs catchment on the opposite side of the railway line and directly into the ocean. Potential improvement to stormwater management could be investigated and implemented at this location or upstream.

5.0 ACTION PLAN

The following table identifies the actions required to implement the plan of management for Jones Beach and Cathedral Rocks Reserve. This action plan is the means of achieving the objectives of the plan of management. Actions can be reviewed in association with Council’s Operating Plan annually. The responsibility for the implementation of these actions is currently the Director of Engineering and Works.

Objectives	How	Specific Actions	Performance measures/achievement of objectives
<ul style="list-style-type: none"> Minimise impact on the condition of the public reserve 	<ul style="list-style-type: none"> Limit vehicle access Control pedestrian access 	<ul style="list-style-type: none"> Vehicle barriers Ranger patrols Maintain fencing across the rear of the dune and along designated pedestrian access points through the dune Remove dune fencing along beachfront where partially buried 	<ul style="list-style-type: none"> Casual/passive observation Routine checks on effectiveness of controls
<ul style="list-style-type: none"> Protect the function of the sand dune as a buffer between public and private assets 	<ul style="list-style-type: none"> Revegetate bare dune areas with plants approved by this plan of management Remove weeds and replace with plants approved by this plan of management Dead vegetation to be replaced with plants approved by this plan of management Diversify dune vegetation 	<ul style="list-style-type: none"> Provide financial and logistic assistance where possible to Landcare group Pursue funding from various sources Establish Landcare group Approved plant species list to guide all future vegetation management 	<ul style="list-style-type: none"> Monitoring of Landcare group works to agreed schedule Periodic checks on infrastructure and vegetation cover

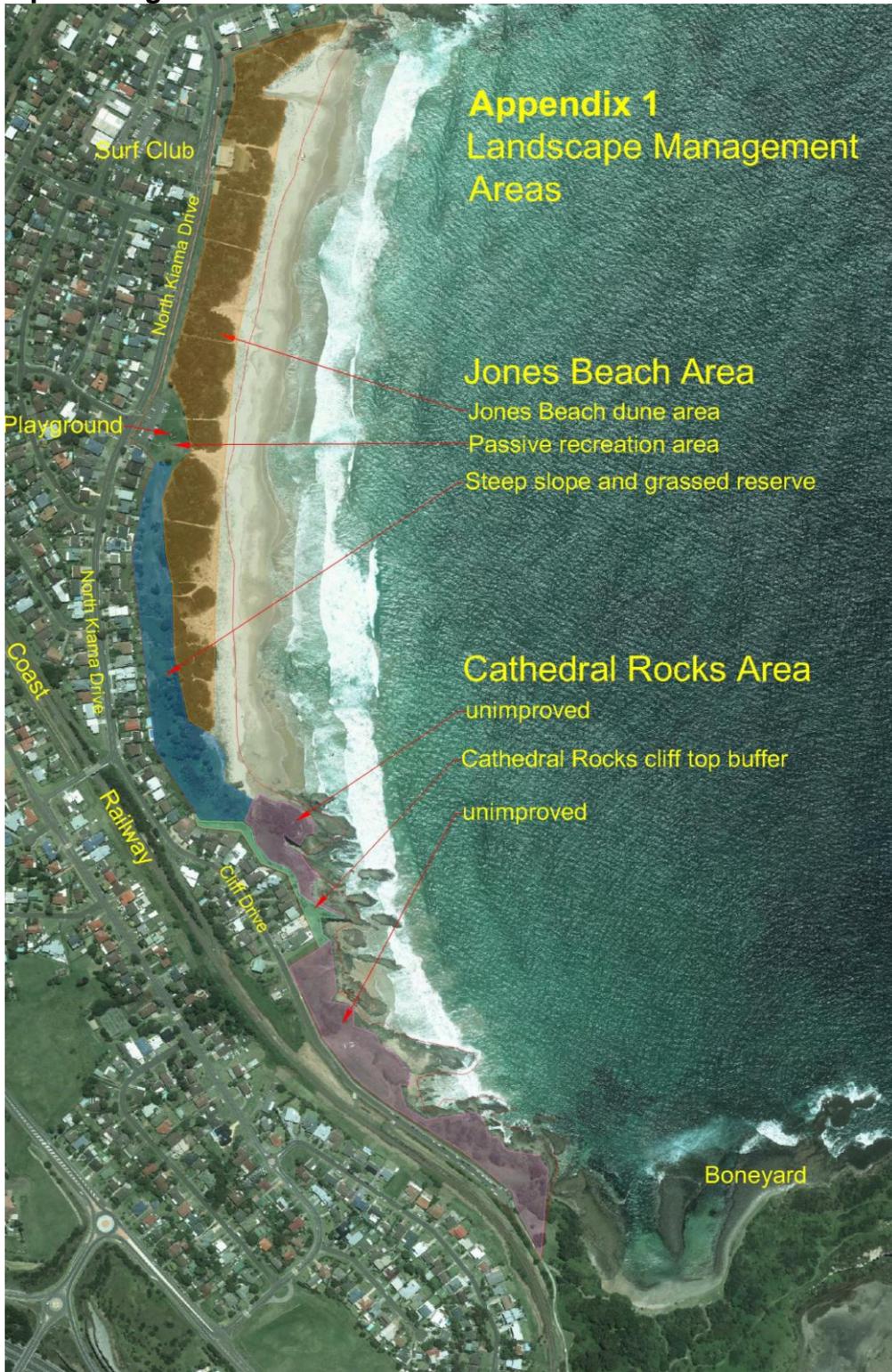
Objectives	How	Specific Actions	Performance measures/achievement of objectives
	<p>with plants approved by this plan of management</p> <ul style="list-style-type: none"> • Retain dune fencing through the dune system (walkways) and along North Kiama Drive 		
<ul style="list-style-type: none"> • Provide for passive recreation activities and public access 	<ul style="list-style-type: none"> • Provide facilities suitable for passive recreation 	<ul style="list-style-type: none"> • Maintain suitable facilities such as playground equipment, picnic facilities and other passive recreation related facilities on the reserve • Provide improved beach patrol/surveillance opportunity in the vicinity of the surf club building for multi-use including accessible paths and observation platform 	<ul style="list-style-type: none"> • Periodic assessment of condition of assets and infrastructure • Casual/passive observation • Construction of facilities

Objectives	How	Specific Actions	Performance measures/achievement of objectives
<ul style="list-style-type: none"> Reduce environmental weed coverage in non-dune areas 	<ul style="list-style-type: none"> Pursue opportunities for funding Pursue opportunities to form Landcare group 	<ul style="list-style-type: none"> Landcare group support and preferred plant species list to be developed to guide all future vegetation management 	<ul style="list-style-type: none"> Monitoring of Landcare group as per agreed schedule and timetable Landcare group established
<ul style="list-style-type: none"> Public safety and access 	<ul style="list-style-type: none"> Identify existing steps in reserve and establish guidelines for upgrading Identify cliff top buffer along Cathedral Rocks headland Investigate continuous public access promenade through public reserve utilising existing step structures 	<ul style="list-style-type: none"> Time period to complete steps upgrading according to specification Introduce cliff top buffer vegetation Future public access connectivity linking Jones Beach to Cathedral Rocks headland incorporating existing steps 	<ul style="list-style-type: none"> Steps upgraded to specification or removal of structures if deemed unsafe and assessment of step structures at 5 year intervals against specification Periodic inspections of cliff top buffer Construction of access
<ul style="list-style-type: none"> Manage the drainage 	<ul style="list-style-type: none"> Minimise the impact of 	<ul style="list-style-type: none"> Funding for public drainage 	<ul style="list-style-type: none"> Monitor reserve after wet

Objectives	How	Specific Actions	Performance measures/achievement of objectives
network	stormwater discharges on the reserve	improvement or private landowner obligation to rectify drainage issues in reserve	weather on causal basis <ul style="list-style-type: none"> • Private drainage discharging onto public reserve remediated to comply with Council regulations

APPENDIX 1

Landscape Management Areas



APPENDIX 2

Plant Species Selection – Jones Beach Management Zone

Botanical name	Common name	Type	Height
<i>Atriplex cinerea</i>	Coastal Saltbush	shrub	1.5m
<i>Breynia oblongifolia</i>	Breynia	shrub	2m
<i>Carpobrotus glaucescens</i>	Pigface	groundcover	-
<i>Commelina cyanea</i>	Commelina	groundcover	-
<i>Correa alba</i>	Coastal Correa	shrub	1.5m
<i>Correa reflexa</i>	Native Fuchsia	shrub	1.5m
<i>Dianella caerulea</i>	Paroo Lily	grass/sedge	1m
<i>Hibbertia scandens</i>	Snake Vine	vine	-
<i>Imperata cylindrica</i> var. <i>Major</i>	Blady grass	grass/sedge	1m
<i>Isolepis nodosa</i>	Knobby Club-rush	grass/sedge	-
<i>Kennedia rubicunda</i>	Dusk Coral Pea	vine	-
<i>Lepidosperma laterale</i>	Sword Sedge	grass/sedge	-
	Coastal Beard		
<i>Leucopogon parviflorus</i>	Heath	shrub	1-2m
<i>Lomandra longifolia</i>	Mat Rush	grass/sedge	1m
<i>Olearia axillaris</i>	Coastal Daisy Bush	shrub	1.5m
<i>Pelargonium australe</i>	Wild Geranium	herb	-
<i>Solanum pungetium</i>	Eastern Nightshade	shrub	1.5m
<i>Solanum stelligerum</i>	Devil's Needles	shrub	2m
<i>Spinifex sericeus</i>	Beach Aspinifex	grass/sedge	-
<i>Sporobolus virginicus</i>	Salt Couch	grass/sedge	-
<i>Themeda australis</i>	Kangaroo Grass	grass/sedge	-
<i>Westringia fruticosa</i>	Coastal Rosemary	shrub	2m

APPENDIX 3

Location of Existing Steps on Public Reserve



APPENDIX 4

Specification - Existing Access Steps Upgrade Jones Beach Reserve

OBJECTIVES	UPGRADE WORKS REQUIRED	SPECIFICATION	COMPLETION DATE
<p>1. To identify existing step structures within the public reserve requiring upgrading to reduce risk and liability</p> <p>2. To identify existing step structures within the public reserve that can potentially be rationalised to reduce the number of structures not built to an original compliance standard</p> <p>3. To achieve consistency in relation to materials of construction and colours wherever possible in order for structures to be recessive and not dominate the landscape/local environment</p> <p>4. To ensure step structures and sizes are responsive to the stairway conditions and assessed as suitable for safe passage</p>	<p>A) Handrail and mid rail to minimum one side of individual step structures</p> <p>B) Individual step platforms (treads) to be level to eliminate trip hazard</p>	<p>A) Continuous handrail(s) that meets the following design and construction requirements under AS1428.4:</p> <ol style="list-style-type: none"> 1. handrails to be circular between 30mm and 50mm diameter, and 2. top of handrails to be between 865mm and 1000mm vertically above the nosing of the stair tread, and 3. handrails to be securely fixed and rigid, and 4. fastenings and materials and construction of handrails to withstand forces in accordance with AS1170.1. 5. mid-rails 30-40mm in diameter and generally complying otherwise with AS1428.4 <p>B) Steps/treads – no greater than 10mm level difference at any one point across each individual tread and of solid construction</p>	<p>All upgrade works to be completed within 9 months from Council's date of adoption of the revised Plan of Management for Jones Beach/Cathedral Rocks</p> <p>All works to be undertaken by Council approved/appointed contractor</p>